

Claims

1. A control device comprising a base, on which at least one component mounting area is provided, which is equipped with a first electrical central interface connected with an internal electrical bus extending in the base, and at least one electrical connection module having electrical inputs and/or outputs permitting a temporary connection of electrical cables, which lead away from the control device, such connection module being able to be mounted on the at least one component mounting area and having a second electrical central interface adapted, as regards the mounting and removal of the electrical connection module, to automatically make contact and, respectively, interrupt contact with respect to the first electrical central interface, at least one additional electrically controlled fluid control module, which may be mounted selectively instead of an electrical connection module on the at least one component mounting area and which possesses a second electrical central interface adapted during fitting and removal of the fluid control module, as regards the first electrical central interface of the respective area, to also automatically make contact and, respectively, interrupt contact, the fluid control module furthermore having fluid line connections accessible from the outside for the temporary connection of fluid lines coming from a pressure source and fluid lines leading to at least one load, and moreover possesses

an electrically operated valve means, which on the basis of control signals communicated by way of the internal bus can control the connection between different ones of such fluid line connections.

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2. The control device as set forth in claim 1, wherein on the base a plurality of component mounting areas are defined each having a first electrical central interface, same being able to be fitted selectively with a connection module or a fluid control module.

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3. The control device as set forth in claim 2, having a plurality of component mounting areas lying arranged in a row direction in sequence and in a common plane of extent.

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4. The control device as set forth in claim 1, wherein the first and second electrical central interfaces are designed in the form of complementary plug connectors.

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5. The control device as set forth in claim 1, wherein the connection modules and the fluid control modules are respectively able to be mounted with their bottom side to the fore on the respective component mounting area, the second electrical central interface being located on the bottom side.

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6. The control device as set forth in claim 5, wherein in the case of the fluid control modules all load fluid line connections provided for the connection of at least one load are located on the top side facing away from the associated component mounting area of the mounted condition.

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7. The control device as set forth in claim 5,

wherein in the case of the fluid control modules all fluid feed line connections, provided for the connection of a pressure medium source, are laterally placed.

5 8. The control device as set forth in claim 1,
wherein the valve means of the at least one fluid control
module possesses a plurality of valve units, which
respectively are composed of a principal valve controlling
the load fluid line connections and at least one
10 electrically operated pilot valve serving for operating
 the principal valve.

15 9. The control device as set forth in claim 8,
wherein at least one pilot valve is in the form of a
piezoelectric valve.

20 10. The control device as set forth in claim 1,
wherein the at least one fluid control valve comprises an
electrical circuit board on which the second electrical
interface is provided and with which the valve means is
connected.

25 11. The control device as set forth in claim 1,
wherein all connection modules and fluid control modules
possess identically designed module housings apart from
the measures relating to the inputs and/or outputs and the
fluid line connections.

30 12. The control device as set forth in claim 1,
wherein the fluid control modules possess a module
housing, in which the valve means are so accommodated that
the module housing covers over the valve means in a
mounted state on a component mounting area, the fluid line
connections being provided on the module housing to be
35 accessible from the outside.

13. The control device as set forth in claim 1,
wherein the internal electrical bus is connected with an
electronic central unit located on the control device,
such central interface having at least one electrical
interface for the connection of an external electronic
control means.

14. The control device as set forth in claim 13,
wherein the electronic central unit contains a memory
programmed control system.